



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,613	10/04/2001	Mark Holst	163 CON DIV	3611

25559 7590 04/14/2006

ATMI, INC.
7 COMMERCE DRIVE
DANBURY, CT 06810

EXAMINER

DUONG, THANH P

ART UNIT PAPER NUMBER

1764

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/970,613

Applicant(s)

HOLST ET AL.

Examiner

Tom P. Duong

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 71-76, 78, 79 and 111-126 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 71-76, 78, 79 and 111-126 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/21/06; 11/8/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 21, 2006 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 2/21/2006 and 11/8/2006 are being considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 71-76, 78, and 111-126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imamura (5,649,985) in view of Ikeda et al. (5,393,394) and Stilger et al. '790. Regarding claims 71, 111, and 119, Imamura '985 discloses an effluent gas stream treatment system, comprising: means for pre-treating (1) the effluent gas stream; an oxidation unit [(4) and col. 8, lines 9-22] downstream of the preheating unit, utilizing a hydrogen source to effective destruct at least a portion of halogen-containing

components; and a quench unit (12) unit downstream of the oxidation. Imamura '985 fails to disclose water vapor from the quench unit is recycled back to the oxidation unit (4) to destruct at least a portion of the halogen-containing components. Ikeda et al. teaches a portion of exiting stream from alkali treatment vessel 15 (quench unit) is recycled back to the radiation chamber (13) via thru mixing tank 11 to facilitate in the decomposition process (Fig. 3 and Col. 10, lines 36-60). Thus, it would have been obvious in view of Ikeda et al. to one having ordinary skill in the art to modify the apparatus of Imamura '985 with a recycled stream as taught by Ikeda in order to enhance the decomposition process. With respect to removing acidic components from the effluent fluid stream, it appears that the acidic components from the exhaust gas F3 are removed by the spray device 7, which constitutes a post treatment unit as claimed. Stilger makes it clear that it is conventional to provide an acid scrubber 40 (post treatment unit) downstream of an water quench unit 38 to remove acid components (Fig. 1 and Col. 8, lines 33-40). Thus, it would have been obvious in view of Stilger to one having ordinary skill in the art to modify the apparatus of Imamura with a post treatment unit downstream of quench unit as taught by Stilger in order to remove acid components prior to releasing the treated gas to the atmosphere. Regarding claims 72-74, 112-114, and 120-122, Stilger discloses the halogen-containing components of the claimed invention (Col. 6, lines 45-51). Regarding claims 75-76, 115-116, and 123-124, Imamura '985 discloses the pre-treatment unit (1) and post-treatment units, which are capable of removing particulates (dust) from the effluent stream (Col. 3, lines 36-50). Note, the recitation with respect to the contents thereof during an intended operation

Art Unit: 1764

and does not impart further structural limitation to the claimed invention. See *Ex Parte Thibault*, 164 USPQ 666, 667, (Bd. App. 1969). Regarding claims 78, 117, and 125, the applied references do not disclose expressly the material construction for the quench unit. However, the effluent gas stream contains corrosive components and therefore, it would have been obvious by design requirement to one having ordinary skill in the art to construct the quench unit with corrosion resistant alloy to minimize corrosion to the quench unit.

4. Claims 79, 118, and 126 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applied references (Imamura '428 in view of Ikeda et al. '394 and Stilger '790) as applied to claim 71 above, and further in view of Holst et al. '890. The applied references fail to disclose an oxidation made of a high temperature oxidation-resistant alloy. Holst teaches the combustor/thermal oxidizer (Abstract) is constructed with a high-alloy matrix bed (Col. 7, lines 11-17) of a heat resistant material in order to withstand a high oxidation temperature. Thus, it would have been obvious in view of the Holst '890 to one having ordinary skill in the art to construct the oxidization unit of the applied references with a heat resistant alloy material as taught by Holst in order to provide an oxidation unit that can operate at a high oxidation temperature.

Response to Arguments

Applicant's arguments with respect to claims 71-76, 78-79, and 111-126 have been considered but are moot in view of the new ground(s) of rejection. The IDS filed on 2/21/06 necessitates new ground of rejection.

Conclusion

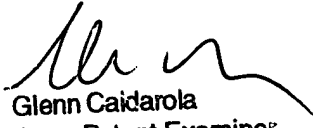
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Duong
April 13, 2006

TD


Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700